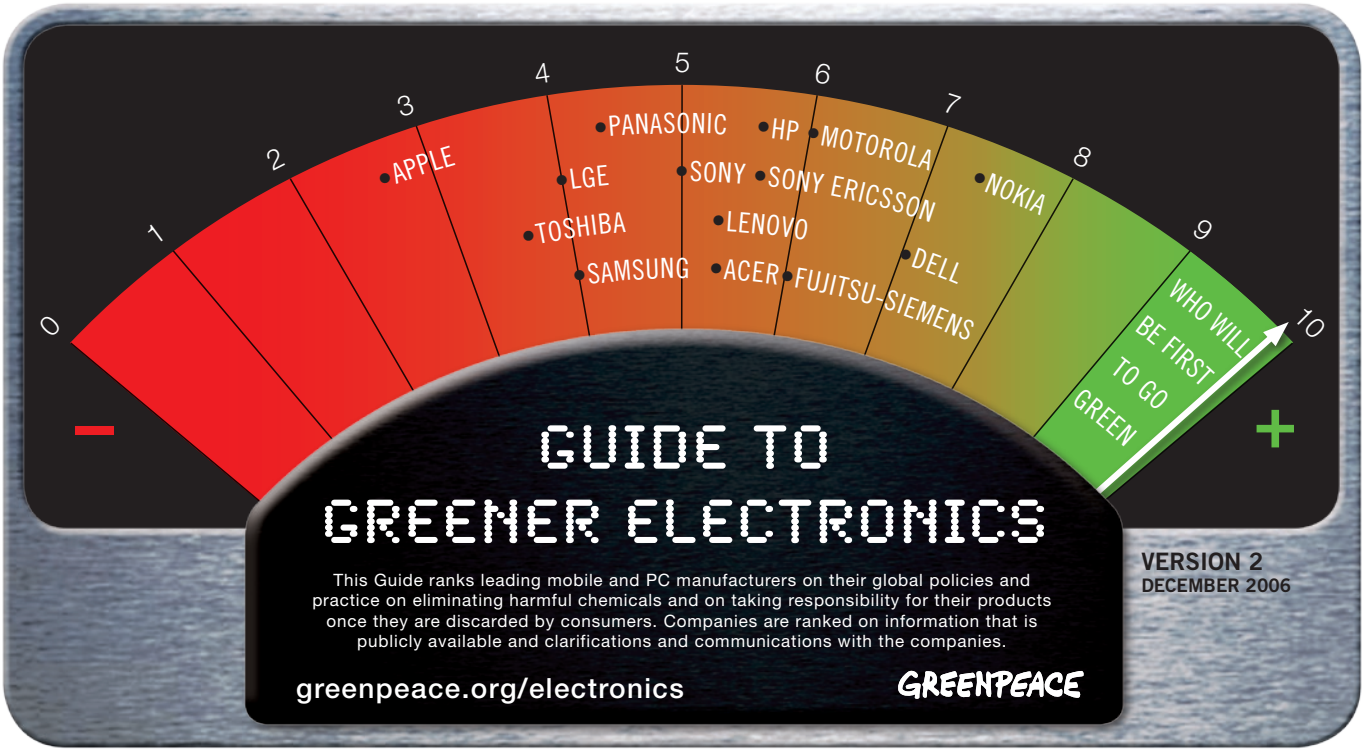


Ranking criteria explained

The ranking criteria reflect the demands of the Toxic Tech campaign to the electronics companies. Our two demands are that companies should:

- clean up their products by eliminating hazardous substances;
- takeback and recycle their products responsibly once they become obsolete.

The two issues are connected. The use of harmful chemicals in electronics prevents their safe recycling when the products are discarded. Companies score marks out of 30, which are then re-calculated to give a mark out of 10 for simplicity.

Toxic chemicals criteria

Greenpeace wants to see electronics companies clean up their act.

Substituting harmful chemicals in the production of electronics will prevent worker exposure to these substances and contamination of communities that neighbour production facilities. Eliminating harmful substances will also prevent leaching/off-gassing of chemicals like brominated flame retardants (BFR) during use, and enable electronic scrap to be safely recycled. The presence of toxic substances in electronics perpetuates the toxic cycle – during reprocessing of electronic waste and by using contaminated secondary materials to make new products.

Until the use of toxic substances is eliminated, it is impossible to secure 'safe' recycling. For this reason, the points awarded to corporate practice on chemicals (five criteria, double points for PVC – and BFR-free models) are weighted more heavily than criteria on recycling, because until the use of harmful substances is eliminated in products, it is impossible to secure 'safe', toxic-free recycling.

The electronics scorecard ranks companies on:

Chemicals policy and practice (5 criteria)

1. A chemicals policy based on the Precautionary Principle
2. Chemicals Management: supply chain management of chemicals via e.g. banned/restricted substance lists, policy to identify problematic substances for future elimination/substitution
3. Timeline for phasing out all use of vinyl plastic (PVC)
4. Timeline for phasing out all use of brominated flame retardants (not just those banned by EU's RoHS Directive)
5. PVC- and BFR-free models of electronic products on the market.

Policy and practice on Producer Responsibility for taking back their discarded products and recycling (4 criteria)

1. Support for individual (financial) producer responsibility – that producers finance the end-of-life management of their products, by taking back and reusing/recycling their own-brand discarded products.
2. Provides voluntary takeback and recycling in every country where it sells its products, even in the absence of national laws requiring Producer Responsibility for electronic waste.
3. Provides clear information for individual customers on takeback and recycling services in all countries where there are sales of its products.
4. Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled.

Click here to see more detailed information on the ranking

Ranking regrading: Companies have the opportunity to move towards a greener ranking as the guide will be updated every quarter. However penalty points will be deducted from overall scores if Greenpeace finds a company lying, practising double standards or other corporate misconduct.

Disclaimer: Greenpeace's 'Guide to Greener Electronics' aims to clean up the electronics sector and get manufacturers to take responsibility for the full life cycle of their products, including the electronic waste that their products generate. The guide does not rank companies on labour standards, energy use or any other issues, but recognises that these are important in the production and use of electronics products.

For the latest version **greenpeace.org/greenerelectronics**

HP's penalty point lifted: In September 2006, one penalty point was deducted from HP's overall score when testing of an HP laptop revealed the presence of a type of brominated flame retardant, known as decaBDE. In its Global Citizen Report 2006, HP states:
"HP eliminated the use of decaBDE many years ago and has no plans to reinitiate its use." HP has uploaded a statement to its website that reaffirms their commitment to non-use of decaBDE, explains how decaBDE came to be found in an HP laptop and what action was taken to avoid similar problems in the future. See the statement at:
http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/sept_2006_greenpeace_report.html

NOKIA Ranking = 7.3/10

Nokia leads the way on eliminating toxic chemicals. After eliminating PVC from their mobile range, Nokia will launch the first phones without components containing BFRs from the start of 2007. But Nokia loses points for failing to provide a clear timeline for the elimination of PVC from all its products range - including network equipment.

Nokia gains points for sharpening up its understanding of what the precautionary principle means in practice. Nokia gets top marks on its support for Individual Producer Responsibility, which means that each company should take care of the electronic waste from its own-brand discarded products.

NOKIA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

NOKIA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				**Nokia's definition of the precautionary principle earns them top points.**
Chemicals Management				Nokia leads the way, already having phased out some harmful chemicals and identifying future substances for elimination, including beryllium, nonyl phenols and NPEs (nonyl phenol ethoxylates), antimony. **Nokia Substance List**
Timeline for PVC phaseout		Nokia has added network equipment to its PVC elimination plan, but has yet to provide timelines for phase out of this application**. More Info.**		
Timeline for BFR phaseout			**Timelines still missing on some applications.**	
PVC-free and/or BFR-free models (companies score double on this criterion)			Waiting for BFR-free models to come on the market. **New models are PVC-free since 31.12.05**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Nokia scores top marks for supporting IPR. **More Info**
Provides voluntary takeback where no EPR laws exist			Still no takeback in many countries in Latin America (e.g. Bolivia, Peru, Venezuela, Peru) and Africa – only North and South Africa **Press release (17 Feb 06)** e.g. **free mail-back for US Greenbox, China In Hungary**	
Provides info for individual customers on takeback in all countries where products are sold			**No information in countries where no takeback services.**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Nokia now provides some information on the amounts of e-waste recycled annually and cumulatively. **More information**	

DELL Ranking = 7/10

Dell's strong position near the top of this scorecard is due to its strong definition of the precautionary principle, timelines for substituting toxic polyvinyl chloride (PVC) and brominated flame retardants (BFRs) and explicit support for Individual Producer Responsibility. Dell falls down for not having models free of PVC and BFRs on the market.

DELL Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

DELL Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Definition of precautionary principle reflects need to eliminate potentially harmful chemicals even without full scientific certainty of cause and effect and earns Dell top marks. **More info.**
Chemicals Management				Dell's chemicals management programme lists substances targeted for substitution and provides good description of how it manages its supply chain to achieve its substitution goals. **Dell's Restricted Materials Program**. **Supplier principles and info.**
Timeline for PVC phaseout				Dell has **committed to eliminate** all remaining uses of PVC in new products by 2009.
Timeline for BFR phaseout				Dell has **committed to eliminate all remaining uses of BFRs** in new products by 2009.
PVC-free and/or BFR-free models (companies score double on this criterion)	No PVC-free or BFR-free products on the market.			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Strong support for IPR and legislation embracing IPR. **Policy supporting IPR The policy**
Provides voluntary takeback where no EPR laws exist			Voluntary takeback to be global by November 2006, but no timelines for planned takeback in some countries of Latin America e.g. Brazil, Argentina and well as other gaps **See information** Currently EU, now US and globally from Nov 06 **Links** to Australia, Europe, Malaysia, New Zealand, Singapore, Canada	
Provides info for individual customers on takeback in all countries where products are sold			Information to consumers, but not yet worldwide: **Dell Recycling Program Asset Recovery Service** Canada at: **Dell Recycling** Also New Zealand and Australia as well as US	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Provides metrics for product recycling & reuse globally but based on weight – not as % sales, although this is acknowledged as a challenge for future. **See information See information See information**	

FUJITSU-SIEMENS Ranking = 6/10

Fujitsu Siemens (FSC) has risen through the ranks to number 3 by making significant improvements on its commitments on several criteria. FSC has improved their definition of the Precautionary Principle, and although no final timeline is given for the phase out of polyvinyl chloride (PVC) and brominated flame retardants (BFRs), it has products on the market which do not use BFRs. FSC earns top marks for a clear statement in support of Individual Producer Responsibility.

FUJITSU-SIEMENS Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

FUJITSU-SIEMENS Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Fujitsu Siemens has made progress in defining the Precuationary principle. Yet, they still fail to fully address the issue of suspect substances currently in use (just stating that they avoid their use). To score higher the company should clearly state that they aim to substitute or eliminate these potentially harmful substances with safer alternatives. **More information**	
Chemicals Management				Fujitsu Siemens has now provided comprehensive lists of banned and restricted substances, materials specifications and associated documents and gets top marks. **More information**
Timeline for PVC phaseout		No final timeline for complete PVC elimination, although there are good intentions **More information**		
Timeline for BFR phaseout		No final timeline for complete elimination of all BFRs, ,although there are good intentions **More information**		
PVC-free and/or BFR-free models (companies score double on this criterion)			The following products, known as Green PCs, use halogen-free flame retarded plastics and halogen-free circuit boards.: • FUTRO C Series thin clients • The Whole ESPRIMO Business Line • ESPRIMO C Series • ESPRIMO E Series • ESPRIMO P Series. • CELSIUS W Series workstation • CELSIUS M Series workstation • CELSIUS V Series workstation These products are marked with a Green sticker. **More information** **Press release** (26May 06) **Press release** (12Jul 05)	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Fujitsu Siemens **makes a clear statement** in support of Individual Producer Responsibility and 'recognises that increasing amounts of end-of-life products, if not properly disposed of, pose a significant threat to the environment.'
Provides voluntary takeback where no EPR laws exist		Although Fujitsu Siemens is planning to provide takeback and recycling in countries where there are EPR laws, there is currently no voluntary takeback in all countries where FSC sells its products. **More information** **Info in German** **Environmental care**		
Provides info for individual customers on takeback in all countries where products are sold		Information for individual customers is provided only in countries with EPR laws, namely EU, Switzerland and Norway. **More information** **More infomation** **More information**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Information about recycling in FSC's recycling centre where the company claims a recycling rate of 98%, as opposed to WEEE Directive's target of 75%. But, data provided only for the one recycling centre. **More information** **More info in German**	

MOTOROLA Ranking = 6/10

Motorola has made the most progress of all the companies, moving from near the bottom of the ranking up to the 4th position. Extra points were earned for their support of precautionary measures on hazardous substances and for having products on the market that are free from brominated flame retardants. Motorola scored top marks for their support of Individual Producer Responsibility; it also gained points for voluntary take-back, provision of information to customers on recycling their old phones and for their reporting on the amounts of discarded mobile phones it takes back and recycles.

MOTOROLA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

MOTOROLA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Motorola does refer to the Precautionary Approach and Precautionary measures, but loses one point for not being explicit about what 'precautionary measures' would be taken. **More information**	
Chemicals Management				Motorola provides a list of chemicals banned and reportable substances in its Global Common Specification No. 12G02897W18. **More information** **Training and resources provided to suppliers**
Timeline for PVC phaseout	No commitment to eliminating PVC. **More information**			
Timeline for BFR phaseout	No commitment to eliminating BFRs. **More infomation**			
PVC-free and/or BFR-free models (companies score double on this criterion)			Motorola provide information about 34 models which are free of BFRs. They have developed PVC-free products, but have not yet provided potential customers with the information to choose PVC-free. **More information**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Motorola makes a clear statement in support of supporting Individual Producer Responsibility. **More information**
Provides voluntary takeback where no EPR laws exist			Motorola provides voluntary take-back in Canada, US, Europe (individuals can post their old phones to Motorola); in other countries collection is expanding with growth of sales (eg. Ecomoto bins are provided at central points in some countries). **Green Box scheme** **Green Box scheme**	
Provides info for individual customers on takeback in all countries where products are sold			Information is provided to individual customers in the countries where they have voluntary programmes, but not in countries where they don't. In the US, Canada & Europe pre-paid envelopes are provided for return of old phones. **More information**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Motorola reports on the quantity of metric tons collected worldwide, but does not present this as a percentage of sales. **More information**	

SONY ERICSSON Ranking = 5.7/10

Sony Ericsson maintains its position near the top of the ranking and gains points for committing to a timeline for substituting polyvinyl chloride (PVC). It also scores well for having products on the market that are free from the worst chemicals. In contrast, Sony Ericsson loses points for making no reference to supporting the Precautionary Principle or Individual Producer Responsibility, and for failing to report on the amounts of discarded mobile phones it takes back and recycles.

SONY ERICSSON Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SONY ERICSSON Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle	No reference to the precautionary principle. **More information**			
Chemicals Management				Sony Ericsson is ahead of many companies in already making efforts to eliminate substances that others have only identified for future action. More information at: **SE's List of Banned & Restricted**
Timeline for PVC phaseout				Sony Ericsson has provided a timeline for substituting PVC by 1st January 2007 in new products. **More information**
Timeline for BFR phaseout				Sony Ericsson has now set a timeline for phasing out 2 exempted uses of BFRs, namely to eliminate BFRs in flexible circuit boards and component molds and substrates by the end of 2007. **More information**
PVC-free and/or BFR-free models (companies score double on this criterion)			BFR-free products are available since the start of 2006 for new models. **More information**	

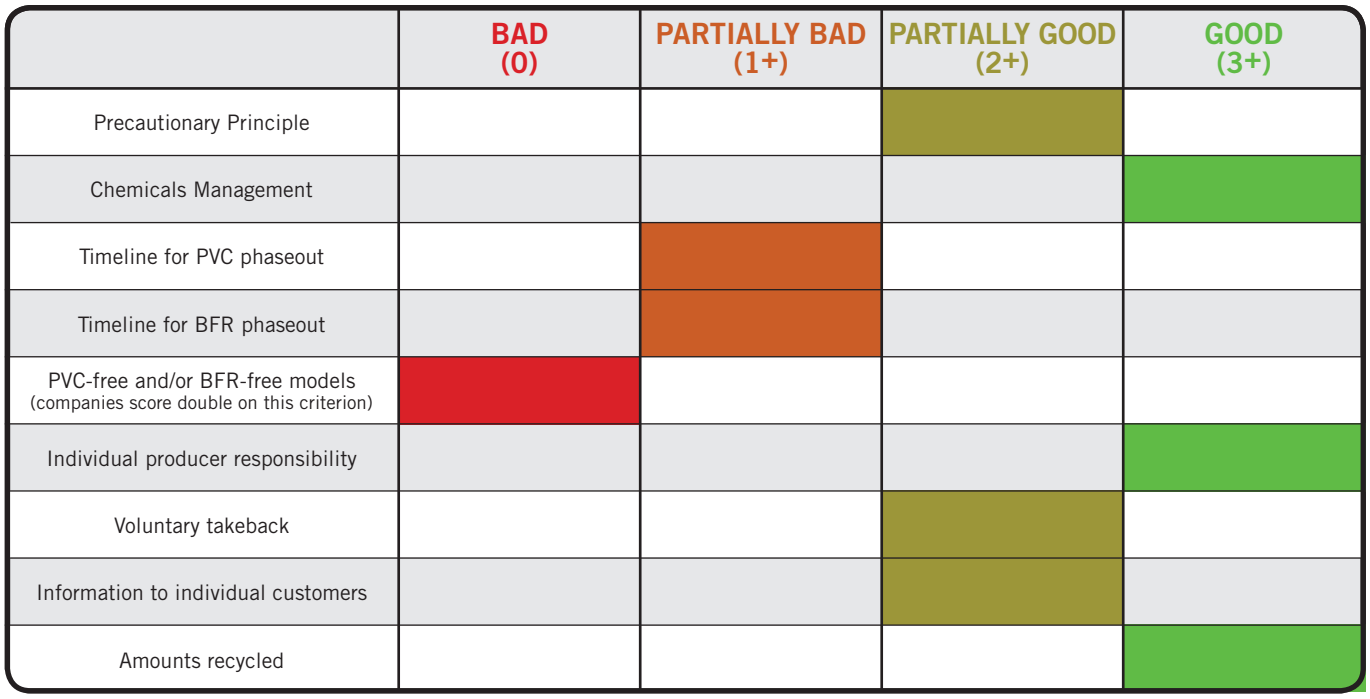
EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	No reference to supporting individual producer responsibility. **More information**			
Provides voluntary takeback where no EPR laws exist			Voluntary takeback services provided globally product-by-product e.g. for W300: **More information** **Also information** **For US consumers**	
Provides info for individual customers on takeback in all countries where products are sold			Voluntary takeback services provided globally product-by-product e.g. for **W300:** **More information** **Also information** **For US consumers**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled	No information on amounts of WEEE collected and recycled.			

HP Ranking = 5.7/10

HP scores top points for providing a substitution timeline for future substances on its radar, strong support for Individual Producer Responsibility and for being the first major company to devise an electronic waste take back / recycling metric based on percent of sales. HP loses points for failing to provide timelines for the complete elimination of toxic polyvinyl chloride (PVC) and all brominated flame retardants (BFRs).
The 2007 date on HP's website is misleading. Their goal is to prepare a substitution plan for BFRs and PVC in 2007, not to eliminate these harmful substances during that year.

In September 2006, one penalty point was deducted from the company's overall score when testing of an HP laptop revealed the presence of a type of brominated flame retardant, known as decaBDE, that HP claims not to use. HP has uploaded a statement to its website that reaffirms their commitment to non-use of decaBDE, explains how decaBDE came to be found in an HP laptop and what action was taken to avoid similar problems in the future. Thus the penalty point has been lifted. See the statement at:
http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/sept_2006_greenpeace_report.html

HP Overall Score



HP Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Definition of precautionary principle does not reflect the need to eliminate potentially harmful chemicals even without full scientific certainty of harm. **More information**	
Chemicals Management				A Substitution timeline, with substances identified by stakeholders as materials of concern helps HP score top marks on this criterion **General Specification for the Environment.**
Timeline for PVC phaseout		Internal communication with HP reveals that the timeline of 2007 is in fact only to provide a substitution plan for PVC elimination. **More information**		
Timeline for BFR phaseout		Internal communication with HP reveals that the timeline of 2007 is in fact only to provide a substitution plan for BFR elimination. **More information**		
PVC-free and/or BFR-free models (companies score double on this criterion)	No BFR-free or PVC-free models on the market. **More information**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				**Strong and explicit support for IPR**
Provides voluntary takeback where no EPR laws exist			Voluntary takeback - not for all products and not in every region of the world **More information** e.g. Voluntary **byteback prog in Victoria, Australia China, Thailand**	
Provides info for individual customers on takeback in all countries where products are sold			No information for consumers in Latin America or Africa. Info on a range of options **(asset recovery, donation).** HP Planet Partners **for many (non-EPR) countries but not all (e.g. not Latin America or Africa).**	
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				The first company to devise **takeback metric based on % sales.** 2006 GCR reports recycling/reuse volumes were 10.3% of sales. [also reports in lbs recycled in 2005 & cumulative lbs]

ACER Ranking = 5.3/10

Acer has broken away from the laggards and is fast moving up the ranking due in part to the company providing timelines of 2009 for substituting PVC plastic and all brominated flame retardants in its products. Acer has also improved communication of its waste policies and practice.

ACER Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

ACER Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Acer scores a 'yes' on its statement on the precautionary principle that recognises the need for preventive action, even if scientific evidence is not conclusive. **Precautionary principle**
Chemicals Management			Acer loses a point because its Hazardous Substance List fails to provide a system for identifying future harmful chemicals for elimination. **2006 Environmental Objectives** **Acer's Hazardous Substance List**	
Timeline for PVC phaseout				Acer pledges to prohibit PVC from use in new products by 2009, in their **Hazardous Substances Free (HSF) plan. Timeline**
Timeline for BFR phaseout				Acer pledges to prohibit BFRs from use in new products by 2009, in their **Hazardous Substances Free (HSF) plan.**
PVC-free and/or BFR-free models (companies score double on this criterion)	No PVC-free or BFR-free models on the market **Product environmental management**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility				Acer scores top marks for supporting IPR. **More information**
Provides voluntary takeback where no EPR laws exist		Acer mainly provides takeback services only when required to do so by national EPR laws, except for US customers. **Easy Disassembly and Product Recycling**		
Provides info for individual customers on takeback in all countries where products are sold		Recycling information provided for EU, Japanese, Taiwanese and US customers only. **More information**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled	No information on the amounts of e-waste collected and recycled.			

LENOVO Ranking = 5.3/10

Lenovo is one of the fastest-moving companies up the ranking, having previously graced bottom position. Reasons for this surge forward are Lenovo providing timelines of 2009 for the elimination of PVC and all brominated flame retardants in its products, as well as improved communication on its waste policy and practice.

LENOVO Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

LENOVO Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Lenovo's understanding of the PP could be strengthened by defining what 'appropriate action' means in practice. **More information**	
Chemicals Management			Lenovo has now posted its Engineering Specification 41A7731 at: **More information**	
Timeline for PVC phaseout				Lenovo's target for elimination of all uses of PVC by 2009 earns the company top marks. **More information**
Timeline for BFR phaseout				Lenovo's target for elimination of all BFRs by 2009 earns the company top marks. **More information**
PVC-free and/or BFR-free models (companies score double on this criterion)	No PVC-free or BFR-free models on the market.			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility			Lenovo's statement in support of IPR is diluted somewhat by the lengthy preamble about the responsibilities of other actors: consumers, retailers etc **More Info**	
Provides voluntary takeback where no EPR laws exist			Voluntary takeback does not cover all countries and in many, takeback services are primarily for business customers, not individual consumers. **Product recycling programs** Includes Australia, US, NZ but Asset Recovery service primarily for business customers. Service for takeback from individual customers **Product recycling programs** **Also for Canada**	
Provides info for individual customers on takeback in all countries where products are sold		Information on takeback is tailored to business customers rather than individual consumers. **Contacts for business** (5 Jul 06) **For US individual customers** **For individual customers Canada** **Contact** (5 Jul 06) **Info for European customers**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled		Lenovo has provided some figures for recycling rates, but is hampered by many of its business customers selling their e-waste to other companies and the fact that Lenovo's global sales operations is only a year old. **More information**		

SONY Ranking = 5.0/10

Although there is a slight increase in Sony's overall score, it has moved down the ranking compared to other companies that have made more progress. Sony earns extra points on chemicals for its commitment to eliminate substances that are potentially hazardous to the environment, and scores well for having models that are free of the worst chemicals on the market. However, Sony has yet to provide timelines for substituting toxic polyvinyl chloride (PVC) and brominated flame retardants (BFRs).

Sony loses a point on Individual Producer Responsibility (IPR) due to its double standards. Sony is a founding member of the European Recycling Platform which supports IPR; however, in the US, Sony is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

SONY Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SONY Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Sony gains 2 points for stating that they will take steps to reduce, substitute and eliminate the use of substances that are potentially hazardous to the environment. **More information**	
Chemicals Management				**Information** on SS-00259 (5th edition, Feb 2006) Management Regulations and Green Partner programme to ensure implementation of the Regulations **Chemicals Management Green Partner auditing**
Timeline for PVC phaseout		Sony has already phased out some applications of PVC, but no timelines on some applications and many exemptions. More information at: **SS-00259 CSR Report 2005**		
Timeline for BFR phaseout		Some applications of BFRs already phased out, but no timelines for applications such as circuit boards. **More information**		
PVC-free and/or BFR-free models (companies score double on this criterion)			Sony has a range of environmentally-conscious products and "Eco-Info" mark products which are free of BFRs in housings and circuit boards. Sony is also reducing use of PVC in some applications **More information Reducing PVC Usage**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	Sony loses the one point it had for its support of Extended Producer Responsibility, due to double standards. In Europe Sony is a founding member of the European Recycling Platform and claims to support IPR. **More information** However, in the US, Sony is a member of the Electronic Manufacturers' Coalition for Responsible Recycling which does not support EPR, but is demanding that consumers pay ARFs (Advanced Recycling Fees). **More information**			
Provides voluntary takeback where no EPR laws exist		Sony provides voluntary takeback in North America and Japan, as well as takeback of batteries in Taiwan and Australia. **More information Voluntary takeback of batteries in Taiwan Voluntary takeback of batteries in Australia**		
Provides info for individual customers on takeback in all countries where products are sold		Sony provides information for individual consumers (for PC monitors) but only in US and gives links to websites of PROs (Producer Responsibility Organisations) in some European countries. **More information Japanese Sony consumer recycling information pages, recycling of TVs. Recycling of Computer Displays & PCs**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Sony reports on the amounts of WEEE and batteries collected in N. America,l recycling rates for TVs and PCs in Japan and recycling rates for batteries in Asia & Australia. **More information Figures for recycling of TVs and PCs in Japan**	

PANASONIC Ranking = 4.3/10

Panasonic's overall score has improved, but it has still moved down the ranking compared to other companies that have made faster progress. Extra points have been earned for its support of the Precautionary Principle, and for its reporting of the quantities of discarded products it takes back and recycles. However, despite very comprehensive web pages on chemicals management and the elimination of polyvinyl chloride in some applications, Panasonic scores poorly on its lack of a commitment to eliminate brominated flame retardants, lack of support for Individual Producer Responsibility and its limited voluntary take-back programmes.

PANASONIC Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

PANASONIC Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				Panasonic endorses the Precautionary Principle as defined in the 1992 Rio Declaration. **More info**
Chemicals Management				Pansonic's web pages on chemicals management contain a lot of detailed of information. Managed substances include: antimony, beryllium, bismuth and phthalate esters. **More information** May 16, 2006 "Chemical Substances Management rank guidelines Ver.4 for products" and "Green Procurement Standards Manual Ver.4 were issued. **More info** **Chemical Substances Management Rank Guidelines for Factories** **Chemicals substituted** **Info about RoHS compliance component by component**
Timeline for PVC phaseout		Some uses of PVC have already been substituted, but there is no timeline for complete elimination of PVC. **More information** **More info** **PVC substitution**		
Timeline for BFR phaseout	BFRs are only 'managed substances' and there is no commitment for their elimination in Panasonic products.			
PVC-free and/or BFR-free models (companies score double on this criterion)		Panasonic provides examples of PVC-free substitutes, including power cords, internal wiring & connecting cords. **More information**		

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	No reference to extended producer responsibility or individual producer responsibility.			
Provides voluntary takeback where no EPR laws exist		Voluntary takeback programmes are not worldwide and do not cover all Panasonic's product groups, mainly mobiles and toner cartridges. **US recycling activities** **More info** For Australia: **Mobiles** **Cartridges** **Toner cartridges in Europe, US, Japan** **More info** **Also info** China Mobiles: **Green Box Scheme** (Chinese) **Green Box Scheme** (Chinese) **News about Green Box** (Chinese) **News about Green Box** (Chinese) **Mobiles in Japan**		
Provides info for individual customers on takeback in all countries where products are sold		Information to customers is available in European countries with EPR laws and for batteries and toner cartridges in US. **More information** **Also information**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Panasonic provides data on home appliances and PCs recycled in Japan and recycling quantities for the Americas and Korea are also given; information for Europe is in its infancy. **More information** **Overview of home-use PC recycling system** **Overview of Recycling for Specified Home Appliances** **Examples of "recycling"**	

LG ELECTRONICS Ranking = 4.0/10

LGE gets top marks for its support of the Precautionary Principle and also scores points for providing timelines for substituting polyvinyl chloride (PVC) and brominated flame retardants (BFRs). It loses points on product take back and recycling.

LGE has slipped down to the 11th place in the ranking due to its double standards on Individual Producer Responsibility (IPR), thereby losing the points it scored for supporting IPR. While LGE's global website states that the company believes that the producer (not consumer) should be responsible for financing the waste management of its own brand products when they are discarded; in the US, LGE is part of a Coalition that has been opposing Producer Responsibility and lobbying for U.S. consumers to pay an Advanced Recycling Fee (ARF).

LG ELECTRONICS Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

LG ELECTRONICS Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle				LGE provides a strong definition of the precautionary principle reflecting the need to take action to eliminate harmful chemicals even though their effects may not be scientifically proven. **More information**
Chemicals Management			LGE provides a substance list that includes future substances to be reduced, including beryllium and antimony. **More information**	
Timeline for PVC phaseout				The first PVC-free products are to be launched in 2008; the remaining uses of PVC are to be phased out by the end of 2010. **More information**
Timeline for BFR phaseout				All new models released in 2010 are to be BFR-free. **More information**
PVC-free and/or BFR-free models (companies score double on this criterion)	No BFR-free or PVC-free product systems on the market.			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	LGE loses its 3 points (in support of IPR) due to double standards. LGE claims to support IPR on its global website. **See info** But in the US, LGE is part of the Electronic Manufacturers' Coalition for Responsible Recycling which does not support EPR, but is demanding that consumers pay ARFs (Advanced Recycling Fees). **More information**			
Provides voluntary takeback where no EPR laws exist	No information about LGE's voluntary takeback programmes on their website. **More information**			
Provides info for individual customers on takeback in all countries where products are sold	No information on what customers can do with their discarded LGE e-waste. **More information**			
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled		LGE provides information on their recycling rates only in Japan and Korea. **More information**		

SAMSUNG Ranking = 4/10

Samsung gets top marks for providing a timeline for phasing out brominated flame retardants (BFRs). It loses points for providing voluntary product take back of its electronic waste only in a few countries and only for some product groups. The company is also weak on information to consumers on what to do with their discarded Samsung products and on reporting on the amounts of electronic-waste collected and recycled.

Samsung's downward slide in the ranking is due to its double standards on Individual Producer Responsibility (IPR), losing it the points scored for supporting IPR. While Samsung's global website states that the company believes that the producer (not consumer) should be responsible for financing the waste management of its own brand products when they are discarded; in the US, Samsung is part of a Coalition that has been opposing Producer Responsibility and lobbying for US consumers to pay an Advanced Recycling Fee (ARF).

SAMSUNG Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

SAMSUNG Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle			Although Samsung states they will 'consider' cases where the scientific evidence on a suspect chemical is conflicting, it states nowhere in the definition what that 'consideration' means in practice e.g. substitution or just restriction and management. **Policy on target substances**	
Chemicals Management			Samsung loses a point for failing to have a system for identifying future chemicals to be targeted for elimination. **Identification and management of targeted substances. Eco-Partner Certification Program**	
Timeline for PVC phaseout			The timeline of 2011 for complete elimination of PVC is not reasonable, which is why Samsung does not score a 'yes'. **Timeline**	
Timeline for BFR phaseout				Samsung scores a yes for providing a timeline of 2010 for phasing out BFRs in all applications. **The greening of products**
PVC-free and/or BFR-free models (companies score double on this criterion)	No BFR-free or PVC-free models on the market.			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	Samsung loses its 3 points (in support of IPR) due to double standards. Samsung claims to support IPR on its global website **More info** But in the US, Samsung is part of the Electronic Manufacturers' Coalition for Responsible Recycling which does not support EPR. Instead, the Coalition is demanding that consumers pay ARFs (Advanced Recycling Fees). **More info**			
Provides voluntary takeback where no EPR laws exist		Samsung loses points for providing voluntary takeback only in a few countries and only for some product groups. Toner cartridges Korea and EU. Part of UNEP's MPPI for mobiles – setting up in Egypt & Romania. Has been involved in pilot takeback in North America (Washington) and China (mobiles only). **Domestic recycling program**		
Provides info for individual customers on takeback in all countries where products are sold		Information provided to consumers only in some countries, and the quality of this information could be improved. Info for EU + Europe + US, Canada, Japan and Korea. **Product take-back and recycling programs**		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled		Samsung reports on amounts of WEEE collected & recycled, but only in Korea, EU and most recently in North America, as well as mobiles in China. **More information**		

TOSHIBA Ranking = 3.7/10

Despite gaining extra points for some models of laptops produced without brominated flame retardants (BFRs) and EcoMark-certified products without polyvinyl chloride (PVC), Toshiba has still not committed to eliminating all uses of PVC and BFRs. The company also loses points for its lack of support for Individual Producer Responsibility and its lack of information for customers on what to do with their discarded products. Toshiba drops to second from bottom in the ranking.

TOSHIBA Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

TOSHIBA Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle		No specific reference to precautionary principle but they do refer to the 'reduction or elimination of use of potentially hazardous substances' in connection with Toshiba signing to the UN Global Compact **More information**		
Chemicals Management				Toshiba has Green Procurement Guidelines for suppliers and ranks suppliers. **More information**
Timeline for PVC phaseout	No commitment to eliminating all PVC. **More information**			
Timeline for BFR phaseout	No commitment to eliminating all BFRs. **More information**			
PVC-free and/or BFR-free models (companies score double on this criterion)			Toshiba make a range of notebook PCs including the 'Dynabook', 'Satellite', 'Tecra' and 'Portege' models which have circuit boards free of halogens and antimony. Toshiba also make EcoMark-certified products, some of which do not contain PVC. It is a shame that the information on PCs with halogen-free and antimony-free circuit boards is ONLY in Japanese as this does not build GLOBAL consumer demand for cleaner electronics. **More information (in Japanese) Check also info**	

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility	No reference to Toshiba's support for individual producer responsibility.			
Provides voluntary takeback where no EPR laws exist		Toshiba claim to be establishing voluntary takeback and recycling systems in North America, China and elsewhere in the world. **More information Recycling Toshiba trade-in program**		
Provides info for individual customers on takeback in all countries where products are sold	No information for individual customers on what to do with their discarded Toshiba products.			
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Toshiba provides information on recycling of home appliances and PCs in Japan, but only in Japan. **More information Increasing the Amount of End-of-Use Products Recycled Also information**	

APPLE Ranking = 2.7/10

For a company that claims to lead on product design, it is perhaps surprising to find Apple at the bottom of the scorecard – moving down from 10th place. While other laggards have moved upwards in the Guide, Apple has made no changes to its policies or practices since the launch of the Guide in August 2006. The company scores badly on almost all criteria. Apple fails to embrace the precautionary principle, withholds its full list of regulated substances and provides no timelines for eliminating toxic polyvinyl chloride (PVC) and no commitment to phasing out all uses of brominated flame retardants (BFRs). Apple performs poorly on product take back and recycling, with the exception of reporting on the amounts of its electronic waste recycled.

APPLE Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

APPLE Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle		Definition of precautionary principle reflects poor understanding of this principle in chemical policy. **More information**		
Chemicals Management		Apple provides only examples of substances that are on its Regulated Substances Specification 069-0135, but the Spec itself is not publicly available. **Read information**		
Timeline for PVC phaseout		Although Apple commits to eliminating PVC, there is no timeline for complete phase out. **More information**		
Timeline for BFR phaseout	Although Apple commits to eliminating all BFRs, there is no timeline for complete phase out. **More information**			
PVC-free and/or BFR-free models (companies score double on this criterion)	No PVC-free or BFR-free product systems. Apple only lists some PVC-free peripherals on its website. **More information**			

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility		Apple refers to its "individually responsible approach" to recycling through its own takeback initiatives and national collective take-back programmes. The definition of IPR needs to be more explicit. **More information**		
Provides voluntary takeback where no EPR laws exist		No voluntary takeback for every country where Apple has sales of its products and not for every type of product. **Information**		
Provides info for individual customers on takeback in all countries where products are sold		No information in every country where sales of products, not even in every country with EPR laws. **Apple recycling program Information** for EU, Japan and Taiwan (EPR laws)		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled			Apple reports on amounts recycled based on weight and not percentage of sales. On the positive side, Apple acknowledges importance of responsible recycling i.e. no export of collected e-waste and bans recovery of plastics in smelters. **Apple and the environment**	